

## Multi-function Video Controller (MPC) Calibration

### Background:

It is necessary to perform Multi-function Video Control (MPC) calibration procedure when any of the below conditions are met:

- The Multi-Function Camera is removed or installed.
- The front windscreen is removed or installed.

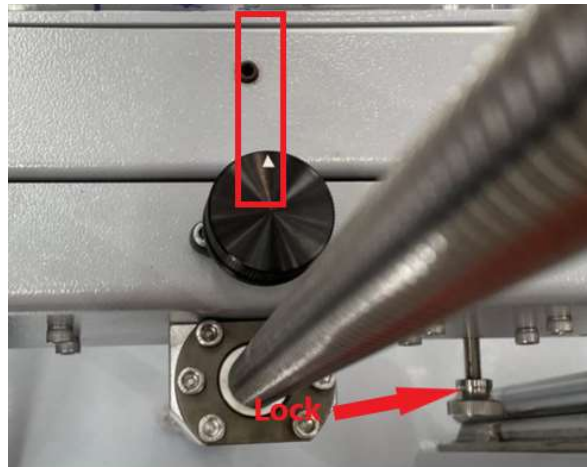
Necessary equipment:

- VDS
- ACC/MPC static calibration tool. (PN:13132573-00)

### 1. Calibration process of MPC

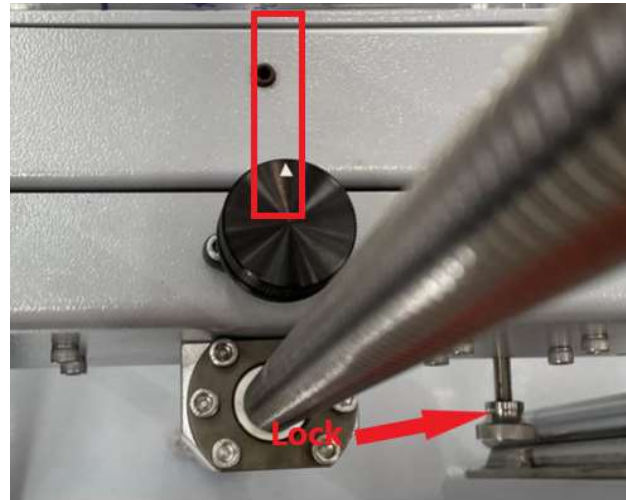
#### 1.1 Preparation for calibration:

- The calibration site for placing equipment and vehicles must be flat.
- The lighting of the alignment plate must be uniform during calibration.
- The vehicle is stationary and powered up
- The wheel alignment is within the specification.
- The tire pressures are set to the correct.
- Vehicle has no load.
- The headlights of the vehicle must be off.
- There is no obstruction between the alignment plate and the camera.

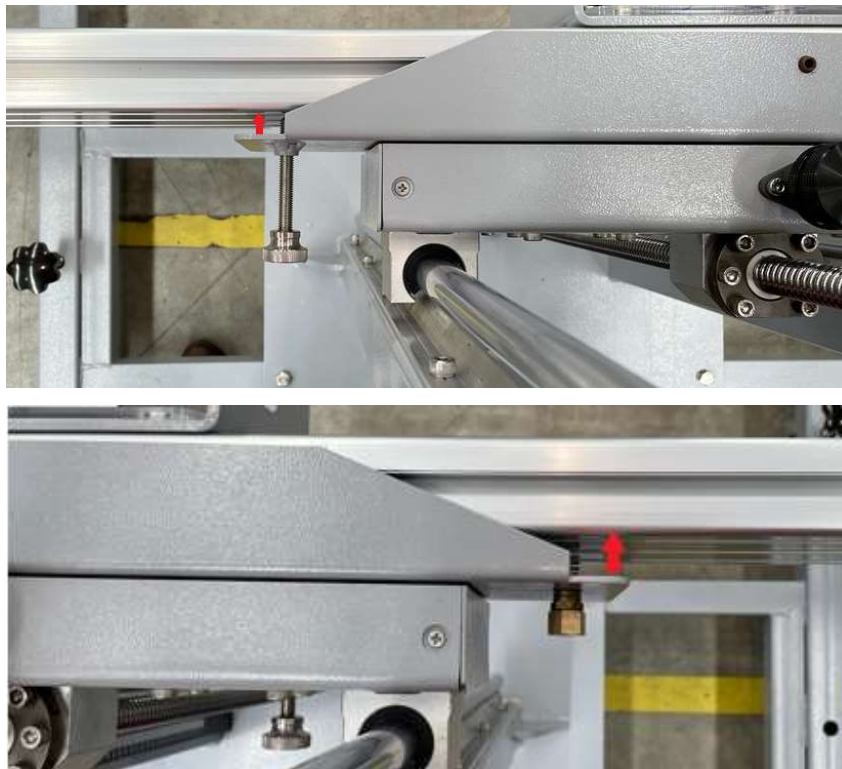


## 1.2 Calibration setup

- 1) Centre the crossbar on the static calibration tool and lock it in position as per the images below



- 2) Adjusted the Crossbar gap indicated by the red arrows in the images below until the gap is equal on both sides



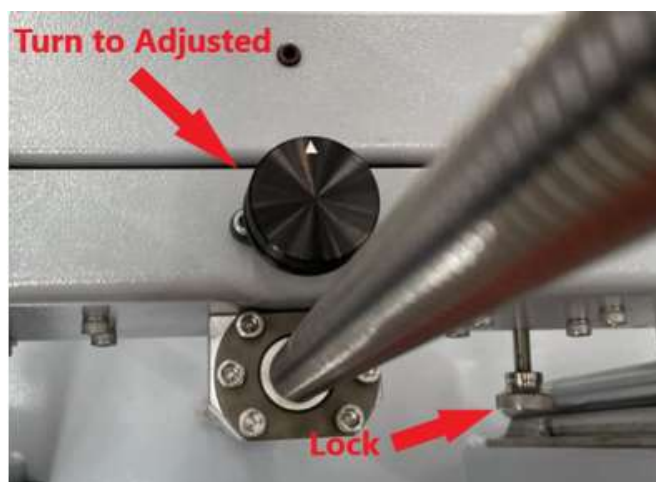
- 3) Centre the static calibration tool in front of the vehicle, then position it **6000mm** away from the front wheel centre to the crossbar outer edges (image is shown for reference only)



- 4) Remove the ACC radar calibration mirror and fit the laser pointer to the static calibration tool,

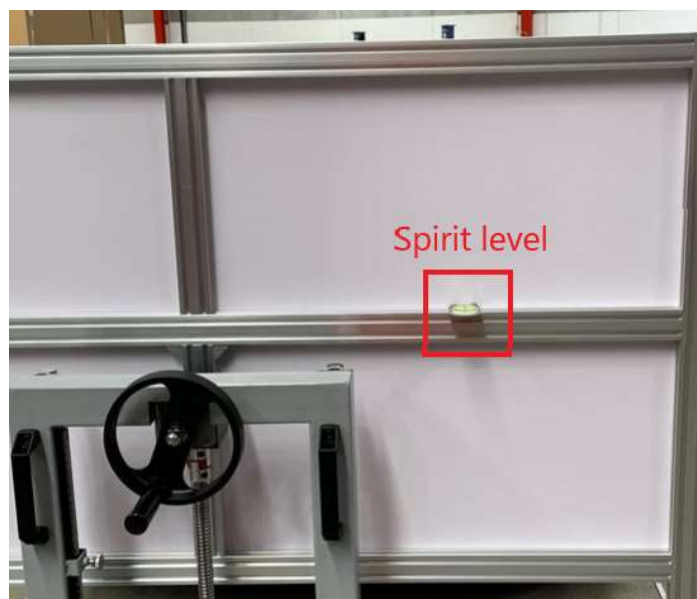


- 5) Unlock the crossbar on the static calibration tool and use the black knob to centre the laser pointer into the middle of the vehicle, and then lock the crossbar in place





- 6) Adjust the 3 base stands of the static calibration tool so that it is level, use the spirit level to confirm this. After adjustments have been made, make sure all 3 base stands are in contact with the ground to stop the static calibration tool from moving



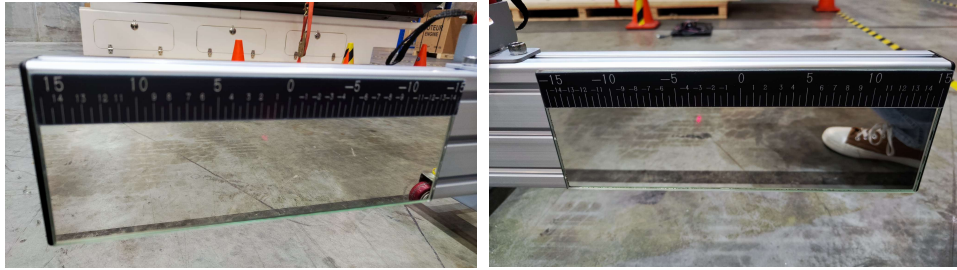




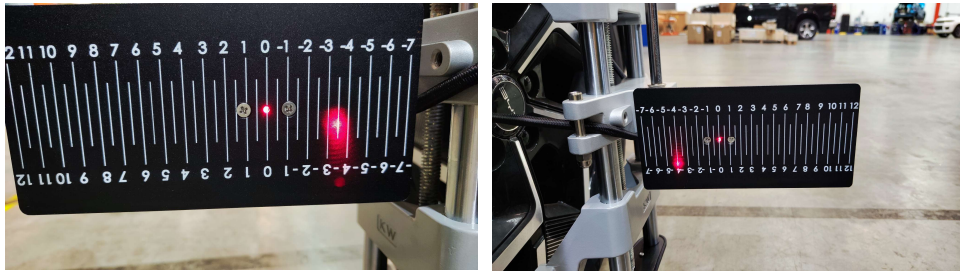
7) Fit the wheel-mounted laser alignment tool to the REAR wheel-mounted.



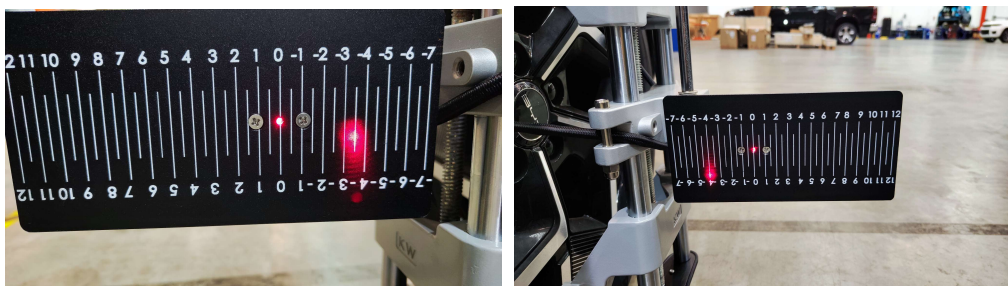
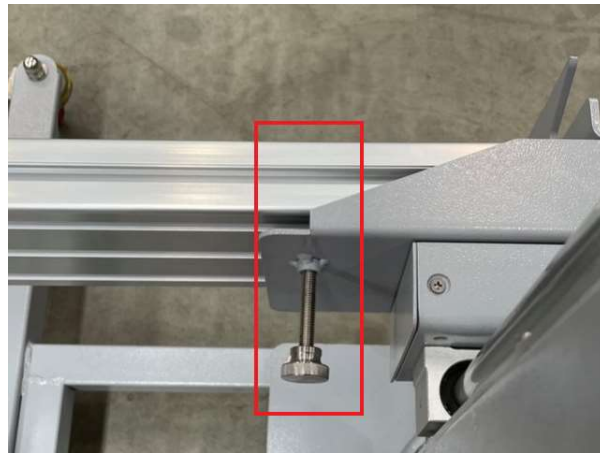
5) set the height of the static calibration tool so that the lasers on the wheel-mounted laser alignment tool can be pointed at the mirrors mounted on the edge of the crossbar



5) Aim the laser pointers on the wheel mount laser alignment tool on the crossbar so that the laser reflects back onto the grid panel on the rear wheel calibration plates.



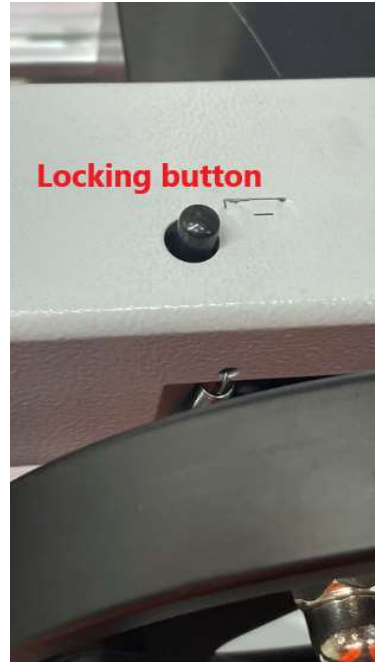
8) Use the adjuster (in the image below) to position the laser point to the same value on both left and right grid panels



4) release the locking screw for the scale on the back of the static calibration tool so that the bottom of the scale touches the ground.



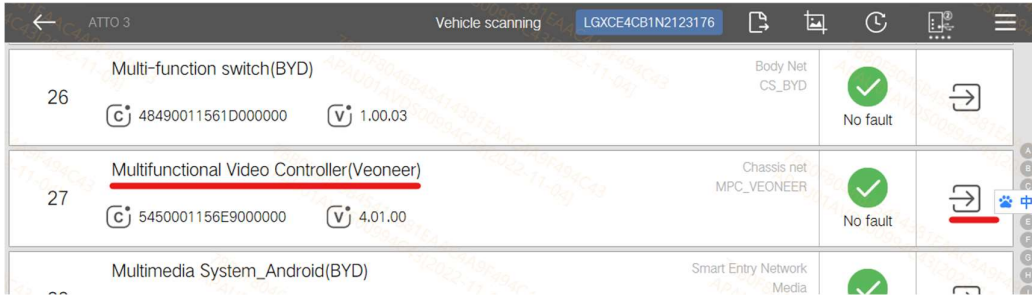
5) Adjust the height of the board to **1449mm**. press the locking button and rotate the wheel to adjust the height of the static calibration tool



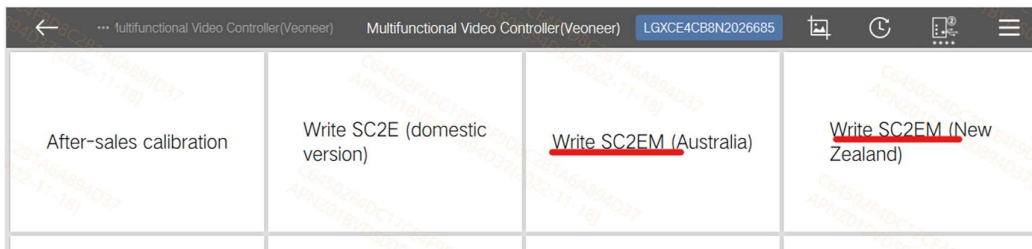


### 1.3 Write configuration

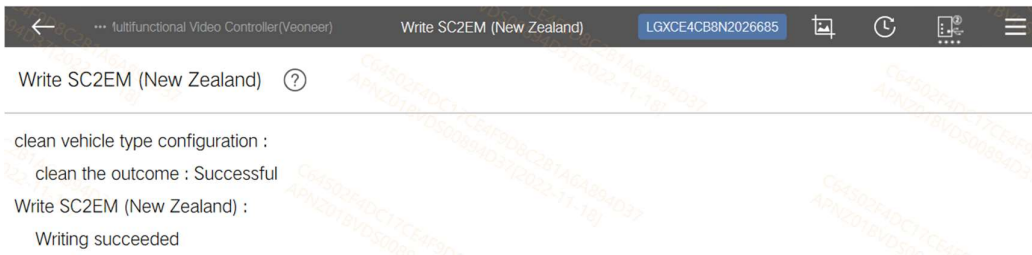
1. Use VDS to scan the vehicle. Enter the “Multifunctional Video Controller (Veoneer)”> Calibration.



2. In the configuration, select “Write SC2EM” (Country)



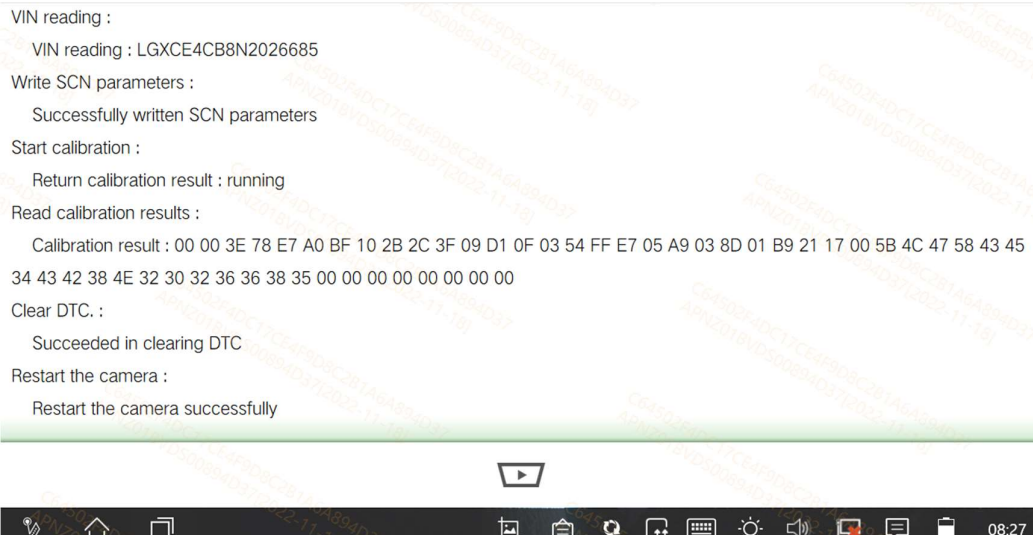
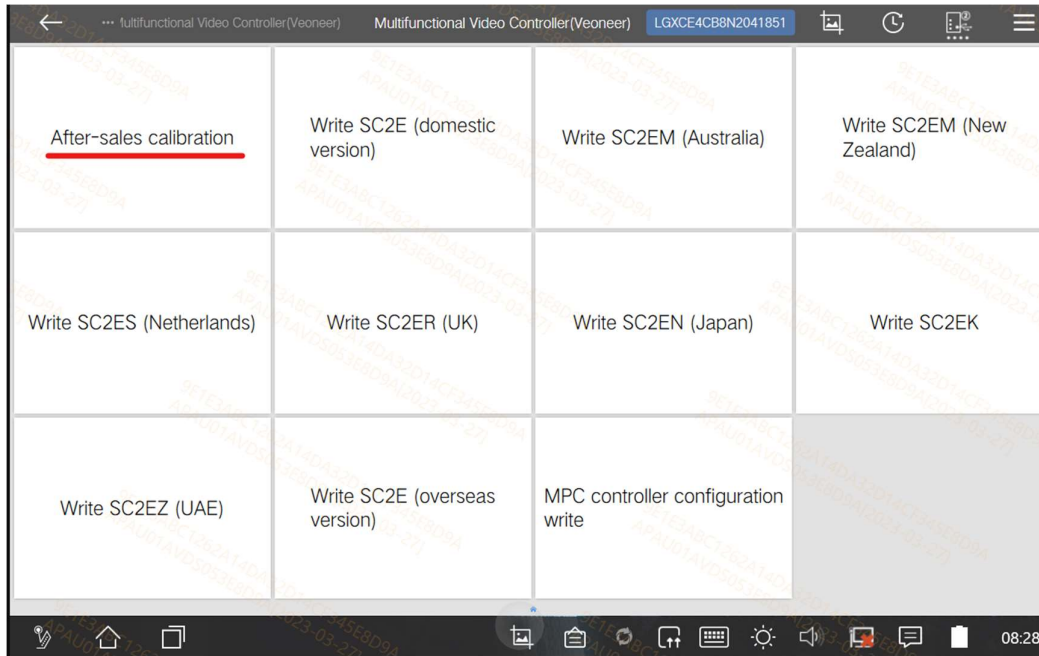
3. “Have read” & hit the “Play” button.



Once the Writing of configuration was performed successfully, return to the previous screen to continue the next step, - **Static Calibration**

### 1.4 After-sales calibration.

Enter the **Multifunctional Video Controller (Veoneer)** > Calibration > After-sales Calibration follow the instructions displayed, then acknowledge **“Have read”** > and select the **PLAY** button”



Read the module fault codes, if it shows “DTC C121100 ECU Internal Failure” please check your setup and repeat the calibration, if still unsuccessful, please seek technical assistance.

2.1 Common found fault.

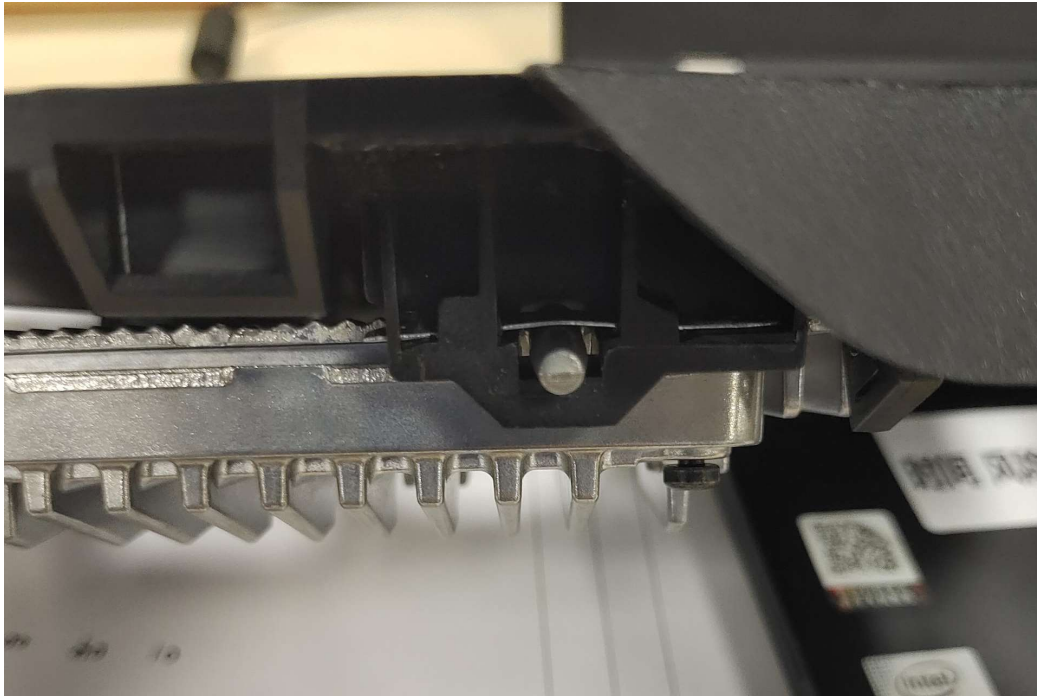


Figure 1: Correctly mounted MPC to windscreen, the position stud is below spring.



Figure 2: Incorrectly mounted, the position stud is incorrect.